

TWO NEW SPECIES OF *ANTIPORUS* SHARP FROM WESTERN AUSTRALIA
(COLEOPTERA: DYTISCIDAE)

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Two new species of *Antiporus* Sharp, *A. pennifolidae* and *A. mcraeae*, are described from the south-west of Western Australia. Both species appear to be restricted to an area threatened by rising salinity.

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Two new species of *Antiporus* Sharp have recently been identified from the south-west of Western Australia. These were among material collected in a biological survey of wetlands in the wheatbelt and adjacent areas by the Department of Conservation and Land Management (CALM). The survey is part of the department's response to problems (particularly salinity and waterlogging) associated with rising groundwater in the region as a consequence of extensive clearing of native vegetation.

Members of the genus *Antiporus* are common in still, or relatively still, water in southern Australia. One species, *A. femoralis* Boheman, is particularly common in the South-West. In a recent revision of the genus, Watts (1997) described two additional species from the region, both seemingly rare with one, *A. pembedtoni* Watts, known only from one specimen from near Pembedton and the other, *A. hollingsworthi* Watts, from 15 specimens. Since then further collecting has provided two additional localities for *A. hollingsworthi* (30 km N Perth, coll. Watts, 15 km S Northcliffe, coll. Pederzani; both in the South Australian Museum), but none for *A. pembedtoni*.

We herein report on and describe two additional species which, like the above, are known from very few specimens. The species were not collected during a recent more intensive survey of wetland invertebrates in the Lake Muir/Pooringup region by A. Storey (personal communication) and will probably prove to have a restricted distribution. The area in which they were found is generally threatened by rising salinity.

We describe the two species here to enable them to be included in the ongoing investigation of this important wetland region.

SYSTEMATICS

Antiporus mcraeae sp. nov.

Type

Holotype: male; 'Melaleuca Swamp, Kodjilup Nature Reserve, 50 km ESE Manjimup, 34°23'45"S 116°39'01"E, W.A. Coll. A. Pinder and J. McRae (CALM), 2/10/98' Registration number WAM 26607, Western Australian Museum.

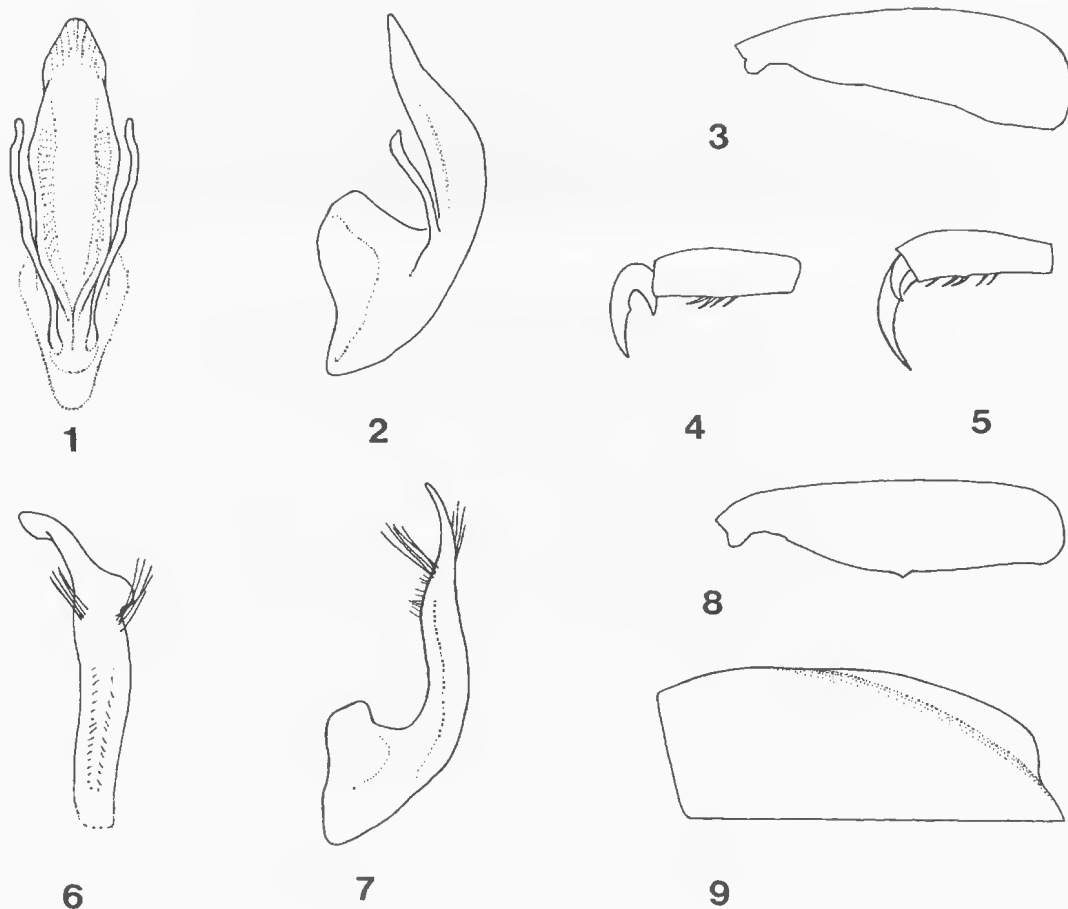
Description (number examined, 1) (Figs 1–4)

Habitus. Length 4.4 mm. Elongate-oval, dark red-brown, sides of pronotum broadly paler, appendages lighter particularly towards extremities.

Dorsal surface. Punctures rather small, regular, those on head smaller than eye facet; row of larger punctures adjacent to suture on elytron; a few small depressions along base of elytron; microreticulation fine, moderately impressed. Pronotal margin narrowly beaded, elytron weakly so.

Ventral surface. Evenly rugose-punctate, punctures somewhat larger than on elytron. Prothoracic process relatively narrow, parallel sided, ridged, tip blunt. Metacoxal lines parallel in posterior quarter, broadening to about 2 times their narrowest width anteriorly, area between them and forward onto mesosternum depressed.

Male. Protarsi moderately expanded, basal segment round, third very deeply bilobed; single claw relatively stout, bent at right angles, with small basal tooth (Fig. 4). Mesotibia quite strongly indented on inner margin near apex; mesotarsi only slightly less expanded than protarsi.



FIGURES 1–9. 1, Dorsal view of median lobe of aedeagus of *A. mcraeae*; 2, ditto lateral view; 3, ventral view of male metafemur of *A. mcraeae*; 4, lateral view of proclaw and apical tarsal segment of male *A. mcraeae*; 5, ditto *A. pennifoldae*; 6, dorsal view of median lobe of aedeagus of *A. pennifoldae*; 7, ditto lateral view; 8, ventral view of metafemur of male *A. pennifoldae*; 9, dorsal view of elytron of female *A. pennifoldae*.

Mesofemur considerably broader towards apex, anterior margin near apex straight (Fig. 3). Median lobe of aedeagus relatively simple but with a thin lateral piece arising from near base on both sides (Fig. 1).

Female. Unknown.

Remarks

The size, colour pattern, relatively broad metacoxal lines with the area between them depressed, male mesotibia indented and male metatibia expanded, place this species in the *A. femoralis* complex. Among these, the relatively weak punctation, the shape of the male metatibia and aedeagus ally it with *A. pembertoni* Watts. It

differs from this species in the shape of the male proclaw which is a little more robust and the central lobe of the aedeagus having an additional piece on each side. In this unusual character it resembles *A. pembertoni* which has a single additional piece arising dorsally.

In the key given to Australian *Antiporus* in Watts (1997) it (male) will run to the *A. femoralis* complex. Further identification within this complex depends on characters of the male proclaw, metafemur and aedeagus (see Figs 1–4, and those in Watts (1997).

Habitat

The single specimen was collected from a

small, slightly acidic (pH 6.0), fresh (1.0 ppt) Melaleuca swamp.

Etymology

Named after Jane McRae, the co-collector of the specimen.

Distribution

Known only from the type locality in the wheat-belt region of south-western Western Australia.

Antiporus pennifoldae sp. nov.

Types

Holotype: male; 'Lake Poorginup, 62 km SE Manjimup, 34°32'56"S 116°44'29"E, W.A. Coll. A. Pinder and J. McRae (CALM), 2/10/98'. Registration number WAM 26606. Western Australian Museum.

Paratype: female; same data as holotype, South Australian Museum.

Description (number examined, 2) (Figs 5–9)

Habitus. Length 3.3–3.4mm. Elongate-oval, reddish-brown, appendages lighter.

Dorsal surface. Punctures dense, moderately sized; those on head weaker and sparser, a little smaller than eye facet; a row of large punctures on elytron adjacent to suture, forming weak groove. Pronotum and elytron with narrow but well marked lateral beading. Microreticulation fine, moderately impressed.

Ventral surface. Punctures similar to those on elytron. Pronotal process blunt, sides weakly bowed, moderately ridged. Postcoxal lines parallel in apical quarter, weakly diverging to about 1.4 times narrowest width, area between them flat, not depressed.

Male. Protarsi moderately expanded, proclaw relatively stout, evenly curved with moderate lateral rather than ventral basal spine (Fig. 5). Mesotibia normal, mesotarsi similar to protarsi except that third segment a bit shorter and two claws present. Metafemur a little stouter than in female with a small triangular spine on hind margin in middle (Fig. 8). Apical third of elytron weakly flanged. Median lobe of aedeagus with asymmetric tip in dorsal view, distal portion setiferous (Fig. 6).

Female. Protarsi weakly expanded, two claws. Mesotarsi moderately expanded, more so than protarsi. Metatibia simple. Elytron very widely

flanged, beginning in middle and expanding until same width as rest of elytron near apex, then ending abruptly, a short apical portion of elytron not flanged (Fig. 9).

Remarks

A relatively small reddish species, the female of which is instantly recognisable by the strongly flanged elytra. In the male only a rather indistinct narrow flange is present. The distinctly asymmetric and setiferous median lobe of the aedeagus are characters not shared by any other *Antiporus*.

In the key to Australian *Antiporus* in Watts (1997) the females of *A. pennifoldae* can be taken out at the start by the presence of strongly flanged elytra. The males will run to couplet 15, where they can be distinguished from both alternatives by the presence of a small triangular spine on the hind edge in the middle of the otherwise simple metafemur.

The average size, relatively uniform reddish-brown colour and essentially simple metafemora suggest that the species does not belong in the *A. femoralis* complex. It appears to be a rather isolated species.

Habitat

Recorded only from a fresh (0.2 ppt), sedge-filled peat swamp surrounded by Melaleuca shrubs.

Distribution

Known only from the type locality.

Etymology

Named after Melitta Pennifold who was the first to recognise the specific distinction of the specimens.

ACKNOWLEDGMENTS

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REFERENCE

- WATTS, C. H. S. 1997. Four new species of *Antiporus* Sharp (Coleoptera: Dytiscidae) from Australia, with notes on *A. femoralis* (Boh.) and *A. interrogationis* (Clark). *Records of the South Australian Museum* 30 (1): 35–42.